



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,270	02/17/2004	Michael S. Bender	5681-76100	2233
35690 7590 04/03/2007 MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C. 700 LAVACA, SUITE 800 AUSTIN, TX 78701			EXAMINER FARROKH, HASHEM	
			ART UNIT	PAPER NUMBER
			2187	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/03/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/780,270

Applicant(s)

BENDER ET AL.

Examiner

Hashem Farrokh

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/18/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/29/07</u> . | 6) <input type="checkbox"/> Other: _____ |

The instant application having application No. 10/780,270 has a total of 21 claims pending in the application; claims 1-4, 8-12, and 14-21 have been amended; no claims have been canceled or added.

INFORMATION CONCERNING CLAIMS:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 8-12, and 15-19 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 7,103,760 B1 to Billington et al. (hereinafter Billington).

1. In regard to claim 1 Billington discloses system and method of using thin client(s) devices, which is combined with hardware/software at server and facilitates concurrent use of resources of powerful PC or computer (see column 5, lines 51-67 to column 6, lines 1-2). The thin client disclosed by Billington represents the stateless client recited in the instant application (e.g., see U.S. Patent Pub. No. 2005/01023377 A1 to King et al. defines the thin client as stateless client). Referring again to claim 1, Billington teaches:

“A system (e.g., Fig. 11), comprising:”

Art Unit: 2187

"a server configured to execute an application;" (e.g., see column 13, lines 19-67 to column 14, lines 1-16). *Billington teaches various uses of thin clients that use resources of a processor or a server for various applications. The applications are executed at PC or server.*

"a stateless client configured to communicate with said server (e.g., see column 13, lines 19-29; Fig. 11), and further configured such that during use, a user interacts with said application via said stateless client;" (e.g., see column 5, lines 51-57; column 14, lines 8-16; Fig. 11). *For example Billington teaches various application of system 10 shown in Fig. 11. The system shows that thin client 12 communicates with processor 14 comprising a server via wire/wireless lines. Some examples of the applications using thin client is web radio and TV.*

"a mass storage device locally coupled to said stateless client (e.g., paragraph 13, line 47; Storage Drive 80 in Fig. 11), wherein said mass storage device is accessible by said user via said server." (e.g., see column 13, lines 19-31; Fig. 11). *Fig 11 shows that mass storage device 80 is locally connected to the thin client 12. The server coupled to the thin client device. The mass storage device is accessible by users via processor 14 that comprises a server.*

"wherein said server is further configured to store data to said mass storage device via said stateless client in response to said user's interaction with said application." (e.g., see column 3, lines 41-50; paragraph 13, line 67 to column 14, lines 1-7; Fig. 11). *Billington does ^{not} explicitly spell out to store the data to mass storage 80. However, it is clear that the users of the thin clients use the resources provided by processor 14*

comprising a server and the mass storage 80. The processor 14 uses peripheral devices including the mass storage 80 for storing data.

2. *In regard to claims 2, 9, and 16 Billington teaches:*

"wherein said storage device is locally coupled to said stateless client via a Universal Serial Bus (USB) or IEEE 1394 interface." (e.g., see column 10, lines 17-20).

3. *In regard to claims 3, 10, and 17 Billington teaches:*

"wherein said storage device is a mass storage device employing magnetic media." (e.g., see column 8, lines 37). For example the hard disk comprises is a mass storage device that employing magnetic media.

4. *In regard to claims 4, 11, and 18 Billington teaches:*

"wherein said storage device is a mass storage device employing optical media." (e.g., see column 2, line 67).

5. *In regard to claims 5, 12, and 19 Billington teaches:*

"wherein said storage device is a solid- state mass storage device." (e.g., see column 12, line 14). For example a flash memory module represents a solid- state mass storage device.

6. *In regard to claim 8 Billington teaches:*

"A method comprising: executing an application on a server;" (e.g., see column 13, lines 19-67 to column 14, lines 1-16).

"a user interacting with said application via a stateless client configured to communicate with said server;" (e.g., see column 5, lines 51-57; column 14, lines 8-16; Fig. 11).

Art Unit: 2187

“and said user accessing a mass storage device via said server (**e.g., see column 13, lines 19-31; Fig. 11**), wherein said mass storage device is locally coupled to said stateless client.” (**e.g., Mass Storage Device 80 in Fig. 11**).

“wherein said server is further configured to store data to said mass storage device via said stateless client in response to said user’s interaction with said application.” (**e.g., see column 3, lines 41-50; paragraph 13, line 67 to column 14, lines 1-7; Fig. 11**).

7. *In regard to claim 15 Billington teaches:*

“A computer-accessible medium comprising program instructions, wherein the program instructions are computer-executable by a server to:” (**e.g., see column 2, lines 66-67 to column 3, lines 1-17**). *Billington teaches processor of data or tasks that are executed by the processor or server. To process data and to execute tasks and various applications taught by Billington would comprise program instructions.*

“detect the presence of a mass storage device locally coupled to a stateless client;” (**e.g., see column 9, lines 9-13; column 10, lines 1-20**). *Billington teaches, for example, a software implementation of the “key” enabling detection of compatibility or incompatibility of the devices. The devices includes mass storage.*

“and interface said mass storage device (**e.g., element 80 in Fig. 11**) to an application executable on said server;” (**e.g., see column 5, lines 51-57; column 14, lines 8-16; Fig. 11**). *Mass Storage Device 80, connected to Thin Client 12, is accessible by the by the application executable on the Processor or server 14.*

“wherein a user interacts with said application via said stateless client (**e.g., see column 5, lines 51-57; column 14, lines 8-16; Fig. 11**), and wherein said mass

Art Unit: 2187

storage device is accessible by said user via said server.” (e.g., see column 5, lines 51-57; column 14, lines 8-16; Fig. 11).

“wherein the program instructions are further executable by the server to store data to said mass storage device via said stateless client in response to said user’s interaction with said application.” (e.g., see column 3, lines 41-50; paragraph 13, line 67 to column 14, lines 1-7; Fig. 11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 13, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billington in view of U.S. Patent Publication No. 2004/0064461 A1 to Pooni et al. (hereinafter Pooni).

8. *In regard to claims 6, 13, and 20 Billington teaches all limitations included in the base claims but does not expressly teach: “wherein said server is further configured to provide a kernel execution mode and a user execution mode, and wherein said server is further configured to execute a storage service daemon, wherein said storage service daemon executes in user execution mode.”*

Poona teaches: "wherein said server is further configured to provide a kernel execution mode and a user execution mode (e.g., see paragraph 52 in page 5), and wherein said server is further configured to execute a storage service daemon (e.g., see paragraph 52 in page 5), wherein said storage service daemon executes in user execution mode." (E.g., see paragraph 39 in page 4) for executing storage service (e.g., SCSI subsystem) daemon in user mode.

Disclosures by Billington and Pooni are analogous because both references related to network storage and computing systems.

At the time of invention it would have been obvious to a person of ordinary skill in art to modify the sever taught by Billington to include the kernel mode and user mode taught by Pooni.

The motivation for executing storage service daemon in user mode as taught by paragraph 33, page 3 of Pooni is a method and arrangement for dynamically detecting one or more SCSI devices on a Linux host, thus improving the method existed in prior art (see background of invention).

Therefore, it would have been obvious to combine disclosures by Pooni with Billington to obtain the invention as specified in the claim.

Claims 7, 14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billington in view of U.S. Patent Publication No. 2003/0056063 A1 to Hochmuth et al. (hereinafter Hochmuth).

Art Unit: 2187

9. *In regard to claims 7, 14, and 21 Billington teaches all limitations included in the base claims but does not expressly teach: "wherein said storage device comprises one or more unit interfaces, wherein each unit interface comprises one or more logical units (LUNs), and wherein each logical unit comprises one or more partitions."*

Hochmuth teaches: "wherein said storage device comprises one or more unit interfaces (e.g., paragraph 30 in pages 4 to 5), wherein each unit interface comprises one or more logical units (LUNs) (e.g., paragraph 30 in pages 4 to 5), and wherein each logical unit comprises one or more partitions." (e.g., paragraph 14 in page 2) for partitioning the logical storage units.

Disclosures by Billington and Hochmuth are analogous because both references related to network storage and computing systems.

At the time of invention it would have been obvious to a person of ordinary skill in art to modify the mass storage device taught by Billington to include the storage device with logical storage units partitioning taught by Hochmuth.

The motivation for logical storage partitioning as taught by paragraph 9, page 1 of Hochmuth is to provide a secure storage access configuration module.

Therefore, it would have been obvious to combine disclosures by Hochmuth with Billington to obtain the invention as specified in the claim.

Response to Remarks

The Applicant has amended the independent claim 15 to read: "A computer-accessible storage medium..." Therefore rejections of claims 15-21 under 35 UCS 101

Art Unit: 2187

are withdrawn in this Office Action. The amendment of claims by the Applicant necessitated use of additional prior art reference. As was stated above Billington discloses thin client devices that use the resources of a server to execute applications desired by users. The thin client device is connected to a mass storage device 80 shown in Fig. 11 and interfaces to the server (e.g., Processor 14) via wired or wireless interfaces.

Conclusion

*Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).*

*A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.*

Art Unit: 2187

Any inquiry concerning this communication should be directed to Hashem Farrokh whose telephone number is (571) 272-4193. The examiner can normally be reached Monday-Friday from 8:00 AM to 5:00 PM.

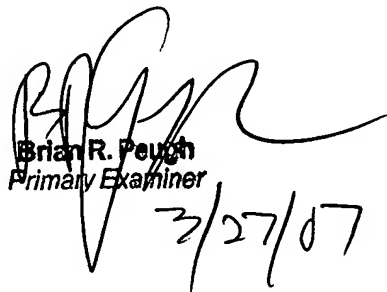
If attempt to reach the above noted Examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Donald A Sparks, can be reached on (571) 272-4201.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBS) at 866-217-9197 (toll-free).

HF

HF

2007-03-26


Brian R. Pough
Primary Examiner
3/27/07